N-TRON 526FX2-A

THE INDUSTRIAL NETWORK COMPANY

The *N-TRON™ 526FX2* Series Industrial Ethernet Switch offers outstanding performance and ease of use. It is ideally suited for connecting Ethernet enabled industrial and/or security equipment and can be optionally configured with advanced Ethernet communication management functions

PRODUCT FEATURES

- Full IEEE 802.3 and 1613 Compliance
- NEMA TS1/TS2 Compliance
- American Bureau of Shipping (ABS) Type Approval
- Twenty-four 10/100 BaseTX RJ-45 Ports
- Two 100BaseFX Ports, ST (shown) or SC
- Extended Environmental Specifications
- Auto Sensing 10/100BaseTX, Duplex, and MDIX
- Store-and-forward Technology
- Up to 2.6 Gb/s Backplane Throughput
- Rugged Industrial Rack mount Enclosure
- Redundant Power Inputs (10-30 VDC)
- Bi-Color LED's For Link, Speed, Activity & Duplex Status

Advanced Management Features (With -A option only):

- IGMP Snooping
- VLAN
- QoS
- Trunking
- Mirroring
- N-View™ (Remote Monitoring Using OPC Technology)

Advanced Management Functions
The *526FX2-A* offers several management functions that can be easily configured using the COM Port (DB 9 Connector located on the front, left side of the switch).
IGMP Snooping - Internet Group Management Protocol is a feature that allows the *526FX2-A* switch to forward and filter multicast traffic intelligently.
VLAN - Virtual Local Area Network allows you to segment the switch in order to create two or more separate local area network domains.
QoS - Quality of Service provides prioritization of network traffic in order to provide better network service. The primary goal of QoS is to improve the latency of prioritized Ethernet packets required for ring management, real-time and other interactive applications.
Trunking - Trunking (aggregation) enables multiple physical ports to be linked together and function as one uplink to another *N-TRON* trunking capable switch configured in the same manner, thereby increasing the bandwidth between switches. This configuration can provide increased bandwidth and redundancy to applications requiring high levels of fault tolerant operation.
Port Mirroring - This *526FX2* function allows the traffic on one port to be duplicated and sent to a designated mirror port. Port mirroring can be used to monitor Ethernet traffic on the designated source port using the assigned mirror port.
N-View OPC Switch Monitoring (With -A or -N Option Only)
The *N-TRON* N-View OLE for Process Control (OPC) Server Software can be combined with popular HMI software packages to add network traffic monitoring, trending and alarming to any application using *N-TRON* switches configured with the N-View option. *N-TRON*'s N-View OPC Server collects 41 different traffic variables per port and 5 system level variables per switch. This information can provide a complete overview of the network load, service quality, and packet traffic. OPC client software can use N-View OPC Server data to resolve network problems quickly and improve system reliability.

Industrial Packaging and Specifications
The *N-TRON 526FX2* is designed to operate in industrial environments. It is housed in a rugged steel rack mount enclosure. Like all *N-TRON* switches, the *526FX2* comes standard with extended temperature ratings, extended shock and vibration specs, redundant power inputs, and a high MTBF (greater than 1M hours).

Ease of Use
The *N-TRON 526FX2* requires no setup unless the advanced port functions are utilized. The twenty-four 10/100BaseTX ports are auto sensing and auto configuring. Each copper port is automatically negotiated for maximum speed and performance by default. The two fiber optic ports support full 200Mb/s communications via 100BaseFX. Bi-color LED's are provided to display the link status, link speed and activity of each port as well as power on/off status.

Performance
The *N-TRON 526FX2* uses "state of the art" IEEE 802.3 Fast Ethernet 10/100BaseTX switching technology. This eliminates network collisions and increases network determinism. 4,000 MAC addresses are supported enabling sophisticated and complex network architectures. A high speed processor and backplane allows wire speed capability on all ports simultaneously.

N-TRON
THE INDUSTRIAL NETWORK COMPANY

526FX2-A

526FX2 Industrial Ethernet Switch Ordering Information

526FX2-A-XX-S	Twenty-four 10/100BaseTX Ports, Two Multimode 100BaseFX Fiber Optic Ports
526FXE2-A-XX-YY	Twenty-four 10/100BaseTX Ports, Two Singlemode 100BaseFX Fiber Optic Ports
Where:	A = A for Advanced Management Features, or N for N-View,and Blank Otherwise, N-View included in -A; XX = ST or SC, YY = 15, 40 or 80 for singlemode, blank for multimode S = Standard Temperature Rating -20ºC to 70ºC, Blank for -40ºC to 85ºC

Specifications

Switch Properties

Number of MAC Addresses:	4,000
Aging Time:	20s, Programmable (-A)
Latency Typ.:	2.1 µs
Backplane Speed:	2.6Gb/s
Switching Method:	Store & Forward

Physical

Height:	1.75" (1U)
Width:	19"
Depth:	4.34"
Weight:	3.7 lbs

Electrical

Redundant Input Voltage:	10-30 VDC
Input Current:	1A@24V
N-TRON Power Supply:	NTPS-24-3 (3 Amp@24V)

Environmental

Operating Temperature:	-20ºC to 70ºC (Standard) -40ºC to 85ºC (Extended)
Operating Humidity:	10% to 95% (Non Condensing)
Operating Altitude:	0 to 10,000 ft.

Shock and Vibration (bulkhead mounting)

Shock:	200g @ 10ms
Vibration/Seismic:	50g, 5-200Hz, Triaxial

Reliability

MTBF:	>1Million Hours

Network Media

10BaseT:	>Cat3 Cable
100BaseTX:	>Cat5 Cable
100BaseFX	
Multimode:	50-62.5/125µm
Singlemode:	7-10/125µm

Fiber Transceiver Characteristics

Fiber Length:	*2km**	*15km***	*40km***	*80km***
TX Power Min:	*-19dBm*	*-15dBm*	*-5dBm*	*-5dBm*
RX Sensitivity Max:	*-32dBm*	*-29dBm*	*-34dBm*	*-34dBm*
Wavelength:	*1310nm*	*1310nm*	*1310nm*	*1550nm*

* Multimode Fiber Optic Cable
** Singlemode Fiber Optic Cable

Connectors

10/100BaseTX:	Twenty-four (24) RJ-45 Copper Ports
100BaseFX:	Two (2) SC or ST Duplex Ports

Serial Configuration Port

Com Parameters:	9600,n,8,1

Recommended Wiring Clearance

Front:	2" (5.48 cm)

Regulatory Approvals

FCC Part 15 Class A,
UL Listed 1604 (US & Canada)
CLASS I, DIV 2, GROUPS A,B,C,D,T4A
ATEX Zone 2, Category 3G, II 3G Ex nA IIC (0316686U)
CE: EN61000-6-2,4, EN55011, EN61000-4-2,3,4,5,6,
GOST-R Certified, RoHS Compliant

Contact Information

N-TRON Corp.
820 S. University Blvd.,
Suite 4E
Mobile, AL 36609 USA
TEL: (251) 342-2164
FAX: (251) 342-6353
Website: www.n-tron.com
Email: N-TRON_info@n-tron.com

N-TRON Europe GmbH
Alte Steinhauserstr 19
6330 Cham / Zg
Switzerland
TEL: +41 41 7406636
FAX: +41 41 7406637

REV 080916